CLAIMS

1. A laser gyro comprising at least one optical ring cavity (1), a solid-state amplifying medium (19) and a feedback system (4, 42, 43), it being possible for two optical modes (5, 6) called counterpropagating modes to propagate in opposite directions from each other inside said optical cavity, the feedback system being intended to slave the intensity of the two counterpropagating modes, characterized in that the amplifying medium (19) is anisotropic and in that the feedback system includes, inside the cavity, at least an optical assembly comprising at least an optical element (7) that acts on the polarization state of the counterpropagating modes and a rotor (8) exhibiting a nonreciprocal effect that also acts on the polarization state of the counterpropagating modes, at least one of the effects of said optical element (7) or of said rotor (8) exhibiting a nonreciprocal effect being adjustable.

2. The laser gyro as claimed in claim 1, characterized in that, when the optical element (7) acts on the polarization state of the counterpropagating modes in a fixed manner, said element is a linear polarizer, the polarization direction of which is not parallel to the direction of maximum gain of the amplifying medium.

3. The laser gyro as claimed in claim 1, characterized in that, when the optical element (7) acts on the polarization state of the counterpropagating modes in a fixed manner, said element is a birerefringent optical plate.

4. The laser gyro as claimed in claim 3, characterized in that said optical element (7) is a birerefringent optical plate obtained from a naturally birefringent material.

5. The laser gyro as claimed in claim 4, characterized in that said optical element (7) is made of quartz.

6. The laser gyro as claimed in claim 1, characterized in that, when the optical element (7) acts on the polarization state of the counterpropagating modes in an adjustable manner, said element is an optical plate exhibiting electrically controlled birefringence.

7. The laser gyro as claimed in claim 1, characterized in that, when the rotor exhibiting a nonreciprocal effect acts on the polarization state of the counterpropagating modes in a fixed manner, it comprises a material exhibiting the Faraday effect polarized by a permanent magnet.

8. A laser gyro comprising at least one optical ring cavity (1), a solid-state amplifying medium (19) and a feedback system (4, 42, 43), it being possible for two optical modes (5, 6) called counterpropagating modes to propagate in opposite directions one with respect to the other inside said optical cavity, the feedback system being intended to slave the intensity of the two counterpropagating modes, characterized in that the amplifying medium (19) is anisotropic, in that the cavity (1) is nonplanar, that is to say the counterpropagating modes do not propagate in a single plane, and in that the feedback system includes, inside the cavity (1), at least a rotor (8) exhibiting an adjustable nonreciprocal effect.

9. The laser gyro as claimed in claim 1 or 8, characterized in that, when the device exhibiting a nonreciprocal effect acts on the polarization state of the counterpropagating modes in an adjustable manner, it comprises a material exhibiting the Faraday effect and polarized by an induction coil (73) controlled by an adjustable electrical current.

10. The laser gyro as claimed in claim 7 or 9, characterized in that the amplifying medium and the material exhibiting the Faraday effect are produced in the same material.

11. The laser gyro as claimed in one of the preceding claims, characterized in that the cavity is monolithic.